



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,267	02/06/2004	Shunpei Yamazaki	740756-2708	4444

22204 7590 07/28/2006

NIXON PEABODY, LLP  
401 9TH STREET, NW  
SUITE 900  
WASHINGTON, DC 20004-2128

EXAMINER

MOORE, KARLA A

ART UNIT PAPER NUMBER

1763

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/772,267

Applicant(s)

YAMAZAKI, SHUNPEI

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 February 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.  
4a) Of the above claim(s) 5-8, 13-18 and 24-28 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4, 9-12, 19-23 and 29-40 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 604,805,205,306.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Claims 5-8, 13-18 and 24-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on 21 February 2006.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 9-12 and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,679,167 to Muehlberger.
4. Muehlberger discloses a semiconductor manufacturing apparatus comprising: means for transferring an object to be processed; at least one plasma generating means for performing a plasma treatment/at least one droplet spraying means for spraying a droplet to the object to be processed (column 7, rows 17-21); and means for moving the at least one plasma generating means/droplet spraying means in the intersecting direction with a transferring direction of the object to be processed (Figure 3; column 6, rows 14-16 and column 10, rows 1-5).
5. The treatment is performed at or adjacent to atmospheric pressure (column 8, rows 47-52).
6. The object is transferred continuously or with the use of step-feed by the means for transferring the object to be processed (See Figure 5).
7. With respect to claim 29, the treatment is performed by the plasma generating means/droplet spraying means for forming a film over the object, etching the object or ashing the object (abstract).
8. With respect to claims 30 and 31, treatment is performed by the plasma generating means/droplet spraying means while moving plasma generating means/droplet spraying means.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 19-23 and 32-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muehlberger in view of U.S. Patent No. 6,203,619 to McMillan.

11. Muehlberger disclose the invention substantially as claimed and as described above.

12. However, Muehlberger fail to teach providing both of and/or a plurality of the plasma generating means/droplet spraying means.

13. McMillan teaches providing a plurality treatment processes in succession for the purpose of simultaneously, mass producing a plurality of integrated circuits in an automatic fashion in a short time (column 2, rows 27-51).

14. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided both of and/or a plurality of the plasma generating means/droplet spraying means in Muehlberger in order to simultaneously mass produce a plurality of integrates circuits in an automatic fashion in a short time as taught in McMillan.

15. With respect to claim 20, the plasma treatment is performed by the plasma generating means/droplet spraying means for forming a film over the object, etching the object or ashing the object (abstract).

16. With respect to claim 21, the objects are transferred unidirectionally in Muehlberger (Figure 5).

17. With respect to claim 22, the object is transferred continuously or with the use of step-feed by the means for transferring the object to be processed (See Figure 5).

18. With respect to claim 23, as noted above, the purpose of providing a plurality of treatement means is so that a plurality of substrates can be processes simultaneously.

Art Unit: 1763

19. With respect to claims 32-36 and 38-40, each of these limitations has been described in the rejection of other claims.

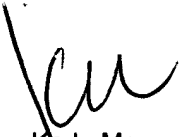
20. With respect to claim 37, which is drawn to a processing material, the courts have ruled that expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim. Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Karla Moore  
Primary Examiner  
Art Unit 1763  
24 July 2006